

CLAIMS

1. Driving mechanism for transferring torque from a driving shaft to a driven shaft, which consists of a first connecting part-unit attached to the driving shaft and a second connection part-unit attached to the driven shaft, and a coupling gear inserted between the first connecting part-unit and the second connecting part-unit, **characterised** by that the first connecting part-unit (10) contains an output member (11) attached to the driving shaft (1) in a fixed position, a first motion transfer unit (13) connected to the output member (11) via a one-degree-of-freedom connecting element (12) and a motion piece (14) connected to the first motion transfer unit (13) in a rotating way, where there is an intermediate connecting piece (13b) between the one end (13a) of the first motion transfer unit (13) connected to the output member (11) and its other end (13c) connected to the motion piece (14), and the section between the one end (13a) of the first motion transfer unit (13) and the intermediate connecting piece (13b), and the section between the other end (13c) of the first motion transfer unit (13) and the intermediate connecting piece (13b) are at an angle (α) of 0-180° with respect to each other, while the second connecting part-unit (20) contains an input member (21) attached to the driven shaft (2) in a fixed position, a first motion transfer unit (23) attached to the input member (21) via a one-degree-of-freedom connecting element (22) and a motion piece (24) connected to the first motion transfer unit (23) in a rotating way, where there is an intermediate connecting piece (23b) between the one end (23a) of the first motion transfer unit (23) connected to the input member (21) and its other end (23c) connected to the motion piece (24), and the section between the one end (23a) of the first motion transfer unit (23) and the intermediate connecting piece (23b), and the section between the other end (23c) of the first motion transfer unit (23) and the intermediate connecting piece (23b) are at an angle (β) of 0-180° with respect to each other, the coupling gear (30) has a first torque transfer shaft (32) and a second torque transfer shaft (33) embedded in a house (31) in a rotating way, the first torque transfer shaft (32) has an input end (32b) and an output end (32c), while the second torque transfer shaft (33) has an input end (33b) and an output end (33c), the input end (32b) of the first torque transfer shaft (32) is connected to the intermediate connecting piece (13b) of the first motion transfer unit (13) of the first connecting part-unit (10), and its output end (32c) is connected to the intermediate connecting piece (23b) of the first motion transfer unit (23) of the second connecting part-unit (20)

allowing torque transfer, but in a self-adjusting way, while the input end (33b) of the second torque transfer shaft (33) is connected to the motion piece (14) of the first motion transfer unit (13) of the first connecting part-unit (10), and its output end (32c) is connected to the motion piece (14) of the first motion transfer unit (23) of the second connecting part-unit (20) allowing torque transfer, but in a self-adjusting way.

2. Driving mechanism as in claim 1, **characterised** by that the size and shape of the output member (11), the first motion transfer unit (13) and the motion piece (14) of the first connecting part-unit (10) is the same as the size and shape of the input member (21), the first motion transfer unit (23) and the motion piece (24) of the second connecting part-unit (20), or they are in proportion with them at the same extent.

3. Driving mechanism as in claim 1 or 2, **characterised** by that the one-degree-of-freedom connecting element (12) belonging to the first connecting part-unit (10) is an element, practically a bearing, allowing the rotation of the first motion transfer unit (13) around its own main axis (13a) in relation to the output member (11).

4. Driving mechanism as in any of claims 1-3, **characterised** by that the one-degree-of-freedom connecting element (22) belonging to the second connecting part-unit (20) is an element, practically a bearing, allowing the rotation of the first motion transfer unit (23) around its own main axis (23a) in relation to the input member (21).

5. Driving mechanism as in any of claims 1-4, **characterised** by that the axis of rotation (32a) of the first torque transfer shaft (32) and the axis of rotation (33a) of the second torque transfer shaft (33) are parallel to each other.

6. Driving mechanism as in claim 5, **characterised** by that the house (31) has a fixed house-member (31a) and a swinging house-member (31b), the fixed house-member (31a) is in a fixed position, and either the first torque transfer shaft (32) or the second torque transfer shaft (33) is fitted in the fixed house-member (31a) in a rotating way, while the other one of the first torque transfer shaft (32) or the second torque transfer shaft (33) is fitted in the other house-member (31b) in a rotating way, and the swinging house-member (31b) is attached in a fixed position to either one of the first torque transfer shaft (32) or the second torque transfer shaft (33) that is situated in the fixed house-member (31a).

7. Driving mechanism as in claim 5 or 6, characterised by that the straight line touching the input end (32b) of the first torque transfer shaft (32) and the input end (33b) of the second torque transfer shaft (33) and the straight line touching the output end (32c) of the first torque transfer shaft (32) and the output end (33c) of the second torque transfer shaft (33) run parallel to each other.

8. Driving mechanism as in claim 1-4, characterised by that the axis of rotation (32a) of the first torque transfer shaft (32) and the axis of rotation (33a) of the second torque transfer shaft (33) are parallel to each other.